

1           1.     A method comprising:  
2                 providing at least two wireless transceiver interfaces; and  
3                 disabling one wireless transceiver interface while another wireless  
4 transceiver interface is conducting communication.

1           2.     The method of claim 1, including:  
2                 detecting activity signals from said at least two wireless transceiver  
3 interfaces;  
4                 assigning a priority to each said wireless transceiver interface;  
5                 tracking a potential communication associated with each said wireless  
6 transceiver interface;  
7                 arbitrating control of communication between said at least two wireless  
8 transceiver interfaces based on the priority and the potential communication; and  
9                 selectively energizing each said wireless transceiver interface based on the  
10 control of communication.

1           3.     The method of claim 2, including:  
2                 determining the type of each said wireless transceiver interface to mitigate  
3 cross-interference between said at least two wireless transceiver interfaces;  
4                 deriving device characteristics and priority information from the priority  
5 and the type of each said wireless transceiver interface; and  
6                 sending said device characteristics and priority information to each said  
7 wireless transceiver interface.

1           4.     The method of claim 3, wherein assigning said priority including  
2 prioritizing each said wireless transceiver interface based on a first criterion indicative of

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3 an overhead associated with said potential communication for each said wireless  
4 transceiver interface.

1 5. The method of claim 3, wherein assigning said priority including  
2 prioritizing each said wireless transceiver interface based on a second criterion indicative  
3 of an amount of data associated with said potential communication for each said wireless  
4 transceiver interface.

1 6. The method of claim 3, wherein assigning said priority including  
2 prioritizing each said wireless transceiver interface based on a third criterion indicative of  
3 a power consumption associated with said potential communication for each said wireless  
4 transceiver interface.

1 7. The method of claim 3, including:  
2 querying to acquire a channel lock for the control of communication; and  
3 providing ownership of the channel lock to one of the at least two wireless  
4 transceiver interfaces based on the device characteristics and priority information.

1 8. The method of claim 7, including:  
2 in response to an indication, gaining ownership of the channel lock; and  
3 opening a communication channel for a communication session associated  
4 with said one of the at least two active wireless transceiver interfaces.

1 9. The method of claim 8, including releasing the ownership of the channel  
2 lock when the communication session is finished.

1           10.    The method of claim 9, including transferring the ownership of the  
2   channel lock to another one of the at least two active wireless transceiver interfaces when  
3   said communication channel becomes available for another communication session  
4   through time slicing.

1           11.    An apparatus comprising:  
2                   a first communication interface corresponding to a first wireless device;  
3                   a second communication interface corresponding to a second wireless  
4   device; and  
5                   a module operably coupled to the first and second communication  
6   interfaces to disable communication between the first communication interface and said  
7   first wireless device while the second communication interface is conducting  
8   communication for said second wireless device.

1           12.    The apparatus of claim 11, wherein said first communication interface to  
2   provide a first activity signal, said second communication interface to provide a second  
3   activity signal, and said module to:  
4                   detect the first and second activity signals, assign a priority to each said  
5   active wireless device, track a potential communication associated with each said  
6   communication interface, and to arbitrate control of communication between the first and  
7   second communication interfaces based on the priority and the potential communication  
8   corresponding to said first and second wireless devices; and  
9                   selectively energize the first and second communication interfaces based  
10   on the communication protocol to mitigate cross-interference between said first and  
11   second wireless devices.

1           13.    The apparatus of claim 12, wherein said module to:  
2                   determine the type of each said wireless device to mitigate cross-  
3 interference between said first and second wireless devices;  
4                   derive device characteristics and priority information from the priority and  
5 the type of each said wireless device; and  
6                   send said device characteristics and priority information to each said  
7 communication interface.

1           14.    The apparatus of claim 13, wherein each said communication interface to:  
2                   query said module to acquire a channel lock for the control of  
3 communication;  
4                   in response to an indication from said module, gain ownership of the  
5 channel lock;  
6                   open a communication channel for a communication session; and  
7                   release the ownership of the channel lock when the communication  
8 session is finished.

1           15.    The apparatus of claim 14, wherein said module to:  
2                   provide ownership of the channel lock to one of the first and second  
3 wireless devices based on the device type and priority information; and  
4                   transfer the ownership of the channel lock to another one of the first and  
5 second wireless devices when said communication channel becomes available for another  
6 communication session through time slicing.

1           16.    An article comprising a medium storing instructions that enable a  
2 processor-based system to:

3 provide at least two wireless transceiver interfaces; and  
4 disable one wireless transceiver interface while another wireless  
5 transceiver interface is conducting communication.

1 17. The article of claim 15 further storing instructions that enable the  
2 processor-based system to:  
3 detect activity signals from said at least two wireless transceiver  
4 interfaces;  
5 assign a priority to each said wireless transceiver interface;  
6 track a potential communication associated with each said wireless  
7 transceiver interface;  
8 arbitrate control of communication between said at least two wireless  
9 transceiver interfaces based on the priority and the potential communication; and  
10 selectively energize each said wireless transceiver interface based on the  
11 control of communication.

1 18. The article of claim 15 further storing instructions that enable the  
2 processor-based system to:  
3 determine the type of each said wireless transceiver interface to mitigate  
4 cross-interference between said at least two wireless transceiver interfaces;  
5 derive device characteristics and priority information from the priority and  
6 the type of each said wireless transceiver interface; and  
7 send said device characteristics and priority information to each said  
8 wireless transceiver interface.

1           19.    The article of claim 15 further storing instructions that enable the  
2 processor-based system to:  
3                   query to acquire a channel lock for the control of communication; and  
4                   provide ownership of the channel lock to one of the at least two wireless  
5 transceiver interfaces based on the device characteristics and priority information.

1           20.    The article of claim 15 further storing instructions that enable the  
2 processor-based system to:  
3                   in response to an indication, gain ownership of the channel lock;  
4                   open a communication channel for a communication session associated  
5 with said one of the at least two active wireless transceiver interfaces;  
6                   release the ownership of the channel lock when the communication  
7 session is finished; and  
8                   transfer the ownership of the channel lock to another one of the at least  
9 two active wireless transceiver interfaces when said communication channel becomes  
10 available for another communication session through time slicing.

1           21.    A processor-based system comprising:  
2                   a processor;  
3                   a storage operably coupled to said processor to store a priority protocol  
4 capable of tracking pending transactions associated with at least two active wireless  
5 transceivers and prioritizing one of said at least two active wireless transceivers;  
6                   at least two wireless transceiver interface devices operably coupled to said  
7 processor to provide corresponding gating signals associated with the at least two active  
8 wireless transceivers; and

9 an arbitration device operably coupled to said at least two wireless  
10 transceiver interface devices to selectively provide communication control to said one of  
11 at least two active wireless transceivers based on the priority protocol.

1 22. The processor-based system of claim 21, wherein said arbitration device  
2 selectively powers up or down the at least two wireless transceiver interface devices  
3 based on the communication control to mitigate cross-interference between said at least  
4 two active wireless transceivers.

1 23. The processor-based system of claim 22, wherein said arbitration device  
2 to:  
3 determine the type of each said active wireless transceiver;  
4 derive device characteristics and priority information from the priority and  
5 the type of each said active wireless transceiver; and  
6 send said device characteristics and priority information to each said  
7 active wireless transceiver.

1 24. The processor-based system of claim 23, wherein each said wireless  
2 transceiver interface device to:  
3 query said arbitration device to acquire a channel lock for the  
4 communication control;  
5 in response to an indication from said arbitration device, gain ownership  
6 of the channel lock;  
7 open a communication channel for a communication session; and  
8 release the ownership of the channel lock when the communication  
9 session is finished.

1           25.    The processor-based system of claim 24, wherein said arbitration device  
2 to:  
3                   provide ownership of the channel lock to one of the at least two active  
4 wireless transceivers based on the device characteristics and priority information; and  
5                   transfer the ownership of the channel lock to another one of the at least  
6 two active wireless transceivers when said communication channel becomes available for  
7 another communication session through time slicing.

1           26.    A personal computer system comprising:  
2                   a processor;  
3                   a storage operably coupled to said processor to store a priority protocol  
4 capable of tracking pending transactions associated with at least two active wireless  
5 transceivers and prioritizing one of said at least two active wireless transceivers; and  
6                   a shared interface to operably couple a chipset with a radio device  
7 interface including:  
8                               at least two wireless transceiver interface devices operably coupled  
9 to said processor to provide corresponding gating signals associated with the at least two  
10 active wireless transceivers, and  
11                            an arbitration device operably coupled to said at least two wireless  
12 transceiver interface devices to selectively provide communication control to said one of  
13 at least two active wireless transceivers based on the priority protocol.

1           27.    The personal computer system of claim 26, wherein said arbitration device  
2 to:



3 selectively power up or down the at least two wireless transceiver  
4 interface devices based on the communication control to mitigate cross-interference  
5 between said at least two active wireless transceivers;  
6 determine the type of each said active wireless transceiver;  
7 derive device characteristics and priority information from the priority and  
8 the type of each said active wireless transceiver; and  
9 send said device characteristics and priority information to each said  
10 active wireless transceiver.

1 28. The personal computer system of claim 27, wherein one of said at least  
2 two active wireless transceivers to communicate using a short range communication  
3 standard-based protocol while another one of said at least two active wireless transceivers  
4 to communicate using a long range communication standard-based protocol with respect  
5 to the short range communication standard-based protocol.

1 29. The personal computer system of claim 26, wherein each said wireless  
2 transceiver interface device to:  
3 query said arbitration device to acquire a channel lock for the  
4 communication control;  
5 in response to an indication from said arbitration device, gain ownership  
6 of the channel lock;  
7 open a communication channel for a communication session; and  
8 release the ownership of the channel lock when the communication  
9 session is finished.

1           30.    The personal computer system of claim 29, wherein said arbitration device  
2    to:  
3                   provide ownership of the channel lock to one of the at least two active  
4    wireless transceivers based on the device characteristics and priority information; and  
5                   transfer the ownership of the channel lock to another one of the at least  
6    two active wireless transceivers when said communication channel becomes available for  
7    another communication session through time slicing.

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